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PARITY PRICES AND PARITY INCOME FORMULAS, 1933–57

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The first purpose of this statement is to summarize the parity price and parity income formulas contained in agricultural legislation from 1933 through 1957, indicating not only the basic calculations but also comparing actual and parity prices or incomes at various points within or over the period. In addition, the characteristics of several alternatives which are, on occasion, suggested for the current parity price formula are summarized (based on the discussion in the report of the Secretary of Agriculture on Possible Methods of Improving the Parity Formula, S. Doc. 18, 85th Cong., 1st sess).

PARITY PRICE FORMULAS

The current parity price formula is based on a commodity purchasing-power concept which compares prices received by farmers with prices paid by farmers (including also allowances for interest and taxes per acre of farm real estate and wage rates for hired farm labor).

Specifically, parity indicates those prices which would give farm products generally the same per unit purchasing power in terms of goods and services used in farm production and in farm-family living as that which prevailed in the base period 1910–14. This was the central idea of parity price when first enacted in 1933, and has continued so to date. In addition, the Agricultural Act of 1948 provided that the parity prices for particular farm commodities shall be so adjusted or modernized as to maintain the same intercommodity relationships as prevailed during the most recent 10-year period. Thus, for determining parity prices in 1957, the relative price experience for a particular commodity in the 10-year period, 1947–56, is applicable.

Before the provisions of the 1948 act were made effective, the parity price for most farm products was determined by multiplying the average price for the individual commodity received by farmers in the pre-World War I period by an index of prices paid by farmers, expressed as a percentage of 1910–14. Thus, the parity price of a commodity changed over time to the same extent that prices farmers had to pay for items used in farm production and farm living changed as compared with the 1910–14 period. For several commodities, price data for the earlier period were not available, or that base period was considered inappropriate and more recent base periods were used.

Since January 1, 1950, when the provisions of the Agricultural Act of 1948 went into effect, parity prices under the new formula have been computed by dividing the average price for a commodity in the

latest 10-year period by the average index of prices received by farmers in the same period on a 1910–14 base. This provides an adjusted base price for the commodity for the 1910–14 period. This adjusted base price is the average price that would have prevailed for the commodity if the price trend for the commodity from the 1910–14 period to the most recent 10-year period had been the same as the average for all commodities in the index. The adjusted base price is multiplied by the current parity index (index of prices paid, including interest, taxes, and wage rates) which reflects the change in prices paid by farmers since 1910–14.

It should be noted that the general level of prices received by farmers which would be equivalent to parity is essentially the same under both the old and the new formula. However, parity prices for individual commodities under the new formula may be quite different—either higher or lower—than those calculated under the old.

Chart 1 (farmers' prices) shows the trends in the indexes of prices received and paid by farmers back to 1910, the beginning of the parity base period. Except for the 1910–14 base period, prices received as a whole have averaged parity or better only in the years 1916–19 and the years 1942–52. These were notably war years or years affected by the inflationary aftermath of a war. The trend was downward from 1951 to 1955 when the parity ratio reached 80 in December 1955, the low point of the postwar period. Since then there has been some improvement with the September 15, 1957, ratio at 83. The parity ratio for farm prices generally from 1910 into 1957, as well as the specific parity ratios for several of the more important commodities from 1933 into 1957, are shown in table 1.

CHART 1

FARMERS' PRICES

% OF 1910-14

Received *

Paid △

% OF PARITY

Prices received

PARITY

1910   1920   1930   1940   1950

* MONTHLY DATA
△ INCLUDES INTEREST, TAXES, AND WAGE RATES. ANNUAL AV. DATA, 1910-23;
BY QUARTERS, 1924-36, BY MONTHS, 1937 TO DATE

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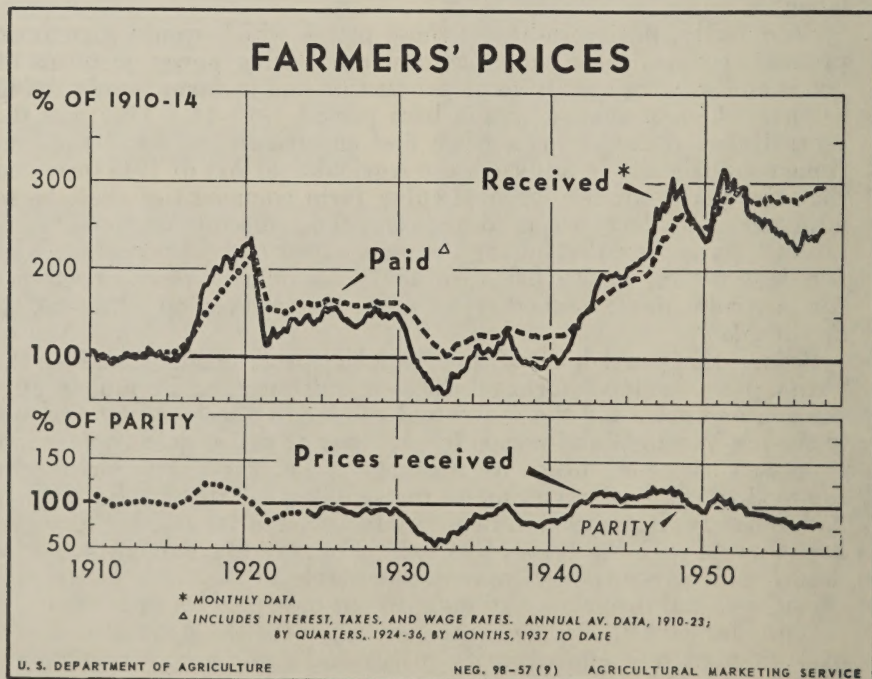
TABLE 1.—*Annual average of the index of prices received by farmers, index of prices paid by farmers, interest, taxes, and wage rates, and the parity ratio United States, 1910–57, and average of prices received by farmers as percentage of the parity price for specified commodities, annually 1933–57*

| Year | Index 1910–14=100 | | | Average price as percentage of parity price [1] | | | | | | |
	Prices received by farmers	Parity index [2]	Parity ratio	Cattle [3]	Hogs	Milk, whole-sale [4]	Eggs	Cotton [5]	Wheat	Corn
1910	104	97	107							
1911	94	98	96							
1912	99	101	98							
1913	102	101	101							
1914	101	103	98							
1915	99	105	94							
1916	119	116	103							
1917	178	148	120							
1918	206	173	119							
1919	217	197	110							
1920	211	214	99							
1921	124	155	80							
1922	131	151	87							
1923	142	159	89							
1924	143	160	89							
1925	156	164	95							
1926	145	160	91							
1927	140	159	88							
1928	148	162	91							
1929	148	160	92							
1130	125	151	83							
1931	87	130	67							
9932	65	112	58							
1933	70	109	64	64	45	77	67	61	61	53
1934	90	120	75	58	48	80	71	80	75	79
1935	109	124	88	87	94	85	88	73	76	94
1936	114	124	92	86	101	94	84	75	86	94
1937	122	131	93	98	101	95	76	68	91	112
1938	97	124	78	96	85	87	79	53	60	61
1939	95	123	77	107	71	87	70	58	58	60
1940	100	124	81	111	60	93	72	64	67	74
1941	124	133	93	122	95	105	88	81	72	76
1942	159	152	105	130	120	108	98	99	77	82
1943	193	171	113	137	118	124	112	99	89	100
1944	197	182	108	121	107	138	94	97	96	105
1945	207	190	109	131	112	135	105	99	97	99
1946	236	208	113	139	124	142	95	118	102	115
1947	276	240	115	148	144	118	93	113	115	126
1948	287	260	110	165	128	122	89	104	97	118
1949	250	251	100	151	103	103	86	96	89	75
1950	258	256	101	133	94	89	68	107	88	82
1951	302	282	107	145	95	97	81	117	88	92
1952	288	287	100	118	84	101	70	105	85	91
1953	258	279	92	79	106	93	79	92	81	81
1954	249	281	89	76	106	85	78	93	83	81
1955	236	281	84	74	73	87	84	92	81	71
1956	235	286	82	69	68	89	83	90	78	70
1957 [6]	242	295	82	76	84	87	72	86	75	63

[1] The percentages are the ratios of the simple average of the 12 monthly prices for individual commodities to their annual parity prices computed by multiplying the 1910–14 base price or the adjusted base price by the annual average of the applicable prices paid index. Parity prices for each year are computed as provided by legislation in effect for that year, except that interest and taxes were included for the whole of 1935 whereas in fact, they were added in July of 1935. More particularly the unrevised prices paid index was used for 1933 and 1934 and the prices paid index including interest and taxes was used from 1935 until the date the effective parity price for an individual commodity shifted to the new formula parity, at which date the use of the index of prices paid, interest, taxes, and wage rates was started. Effective parity prices shifted to the new formula in January 1950 for cattle, hogs, and wholesale milk; January 1954 for eggs and January 1956 for American upland cotton. Effective parity prices for wheat and corn are still on the transitional basis.

[2] Prices paid, interest, taxes, and wage rates.
[3] Includes subsidy payments July 1945–June 1946.
[4] Includes subsidy payments October 1943–June 1946.
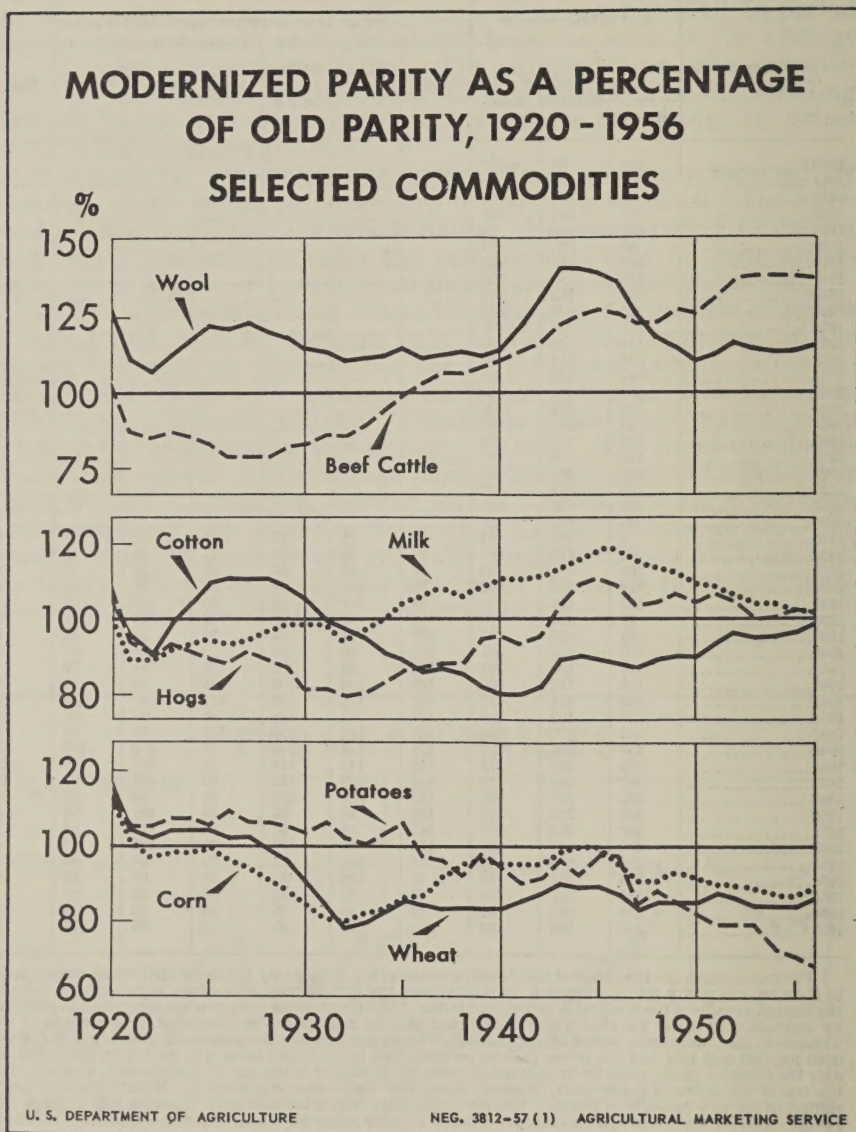[5] All cotton 1933–41; American upland cotton 1942–57.
[6] January–September average.

As noted previously, the overall parity level is unaffected by the modernizing feature which gives weight to relative prices over the most recent 10-year period in determining the parity prices for particular commodities. What is gained by one commodity is offset by

declines in others. Chart 2 shows the new or modernized parity for a number of major farm products as a percentage of the old parity from 1920 through 1956.

CHART 2

MODERNIZED PARITY AS A PERCENTAGE OF OLD PARITY, 1920 - 1956
SELECTED COMMODITIES

%

150

125

Wool

100

75

Beef Cattle

120

Cotton   Milk

100

80

Hogs

120

100

Potatoes

80

Corn

Wheat

60

1920   1930   1940   1950

Thus, the new parities are lower than the old for products such as potatoes and wheat, which have not experienced a rising demand over the years, and higher for such products as beef cattle for which demand grows more rapidly. The new or modernized parity gradually adjusts the relative parity price for specific commodities for persistent or continuing market trends. Under these conditions, changes in parity prices computed by the new formula should come

closer to actual price movements than parity prices computed under the old formula (charts 3 and 4).

CHART 3

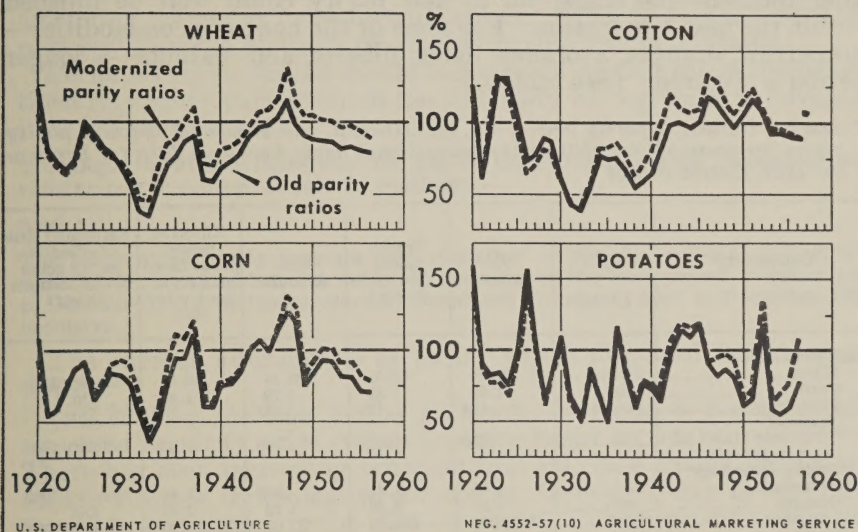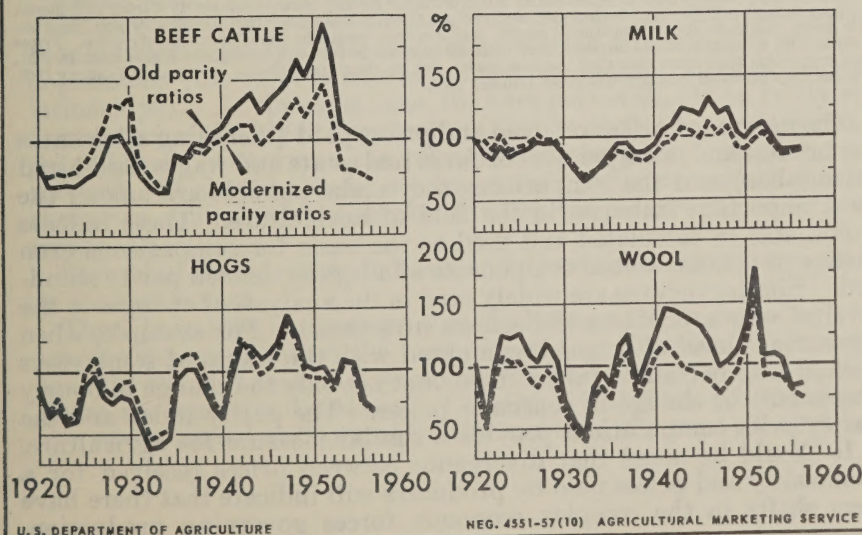MODERNIZED PARITY RATIOS AND OLD PARITY RATIOS
Selected Crops

WHEAT — Modernized parity ratios — Old parity ratios

COTTON

CORN

POTATOES

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CHART 4

MODERNIZED PARITY RATIOS AND OLD PARITY RATIOS
Selected Livestock Products

BEEF CATTLE — Old parity ratios — Modernized parity ratios

MILK

HOGS

WOOL

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Where the old parity price for a commodity was higher than the new parity, legislation provided for a gradual reduction in the old parity until the new or modernized parity level is reached. At that point, the old parity is permanently discarded. In the meantime, the transitional parity is the effective parity. Parity for most commodities is now determined by the new formula. However, 10 commodities are still in the transitional stage. For the basic commodities still on transitional parity—wheat, corn, peanuts, and Puerto Rico filler tobacco—the transition to new parity could well be finished within the next 1 to 3 years. For some of the nonbasic commodities— grapefruit, oranges, avocados, dates, filberts, and walnuts—a longer period is involved. (See table 2.)

TABLE 2.—*Indicated parity prices, old, transitional, and new, and effective parity prices for commodities still on the transitional basis, based on data for September 1957, United States*

Commodity	Unit	Old formula	Transitional parity prices [1]	New formula	Effective parity prices based on data for September 1957	Estimated date of effective parity going to new formula basis [2]
Basic commodities:						
Wheat	Bushel	$2.64	$2.51	$2.34	$2.51	January 1959.
Corn	do	1.92	1.82	1.72	1.82	Do.
Peanuts	Pound	.144	.137	.123	.137	Do.
Tobacco:						
Puerto Rican filler, type 46.	do	.380	.361	.308	.361	January 1960.
Nonbasic commodities:						
Grapefruit	Box	2.35	1.41	.858	1.41	January 1962.
Oranges	do	4.31	2.59	1.72	2.59	Do.
Avocados	Ton	1,040.00	624.00	337.00	624.00	January 1963.
Dates	do	601.00	361.00	130.00	361.00	January 1965.
Filberts	do	682.00	409.00	373.00	409.00	January 1958.
Walnuts	do	798.00	479.00	465.00	479.00	Do.

[1] For basic commodities 95 percent, and for nonbasic commodities 60 percent of the old formula parity.
[2] These estimated dates are based upon the September 1957 difference between transitional parity and new formula parity, and the magnitude of 5 percent of old parity. They assume that the current relationship between the revised and unrevised parity indexes remain unchanged. Consideration has been given also to prices thus far in 1957 and to their probable effect upon adjusted base period prices as of January 1958. For example, for peanuts, the difference between transitional and new parity was 1.4 cents per pound as of Sept. 15, 1957. Since 5 percent of old parity is 0.72 cents per pound, transitional parity during 1958 should be about 0.72 cents lower than during 1957, and about 1.44 cents lower after Jan. 1 1959, at which time the new parity would be above transitional parity, and therefore would be the effective parity price. Prices so far in 1957 indicate that the adjusted base price for peanuts in 1958 will be slightly higher than in 1957, thus supporting the expectation that the new parity will be above transitional parity as of January 1959. It is not very probable that this will occur January 1958.

The indexes of prices received and prices paid (including allowances for interest and taxes per acre of farm real estate and wages paid hired farm labor) and the comparisons they make possible are among the most important statistics in the field of agriculture. These indexes would still be calculated and used as the basis for comparisons even if they were not essential components of a legally defined parity standard. Similar indexes are widely used in the analysis of changes in the level of wages, profits, and business investment. For example, when the current level of wages is compared with the wages of some years back, it is important to take into account not only the change in hourly wages but the change in consumer prices. The parity index and the parity price computations provide a similar measure for agriculture. It should be noted that divergence between prices received for a commodity and prices paid by producers will indicate that there have been shifts in the complex economic forces governing production,

prices and consumption. But parity comparisons only call attention to and assist in measuring the changes which are occuring. By themselves such comparisons do not indicate why a change has occurred nor what should be done about it.

SOME ALTERNATIVE PARITY PRICE PROPOSALS

For the convenience of the subcommittee and discussants, this section summarizes the several alternative suggestions for revising or amending the parity price formula considered in the recent USDA report on "Possible Methods of Improving the Parity Formula."

Perhaps this discussion should begin recalling that the recommendations regarding parity which the Secretary of Agriculture advanced in this report were (1):

The Department concludes that the use of the current general commodity purchasing-power concept should be continued—

and (2):

The modernized parity formula now contained in the Agricultural Adjustment Act of 1938, as amended, be continued except that the base period January 1910 to December 1914, inclusive, should be changed to January 1947 to December 1956, inclusive.

The various alternatives to parity prices discussed in the report were:

(a) *Moving the base period forward.*—For almost a quarter of a century the parity price system has been based on the 1910–14 period. There has been increasing criticism that this base should be modernized.. From a technological viewpoint, farming today is much different from farming in the 1910–14 period. Farm production is now almost twice as large. But that production requires one-third fewer man-hours of farm work. Output per man-hour has tripled. Three-fourths of this increase in farm productivity per man-hour over the past half century has taken place since 1940. Technology has not been limited to farm production. Farm family living standards have also substantially improved.

In the search for the most suitable base period for the appropriate indexes, certain basic criteria should be considered. The base period should reflect a fairly stable economic situation unaffected by wars and depressions (the chief causes of sudden changes or shifts in price relationships). At the same time, the base period should be fairly representative of the kind of agriculture that is likely to prevail for some years ahead. Otherwise the relevance of the parity comparisons is reduced. It should also be a long enough period to smooth out any short-run cyclical relationships. Finally, the indexes should be as accurate as possible.

Several of these criteria indicate an advantage in moving to a fairly recent base period.

There have been suggestions that the base period be a moving average encompassing either the most recent 5 or 10 years. This would have the effect of continually moving the base period forward in time. There are some disadvantages. Chiefly, it is difficult to characterize any recent period as "normal." For example, the most recent 5-year

moving base would reflect an extended period of price declines and surplus accumulation. Faced with a somewhat similar problem, the Congress, in providing for the current "modernized" parity, approved the use of a 10-year moving average for measuring commodity interrelationships, chiefly because it gives a slower moving, more stable measure than a shorter-term average would.

The effects of moving to a different base period than the 1910–14 period on the average level of parity are shown in the following table:

TABLE 3.—*Indexes of prices received and paid by farmers and the parity ratio, selected periods, 1910–56*

Period	1910–14 = 100			Percent change in average parity level
	Index of prices received	Index of prices paid	Parity ratio.	
1910–14	100	100	100	0
1925–29	147	161	91	—9
1935–39	107	125	86	—14
1947–51	275	258	107	+7
1952–56	253	283	89	—11
1947–56	264	270	98	—2

(*b*) *Separate parity indexes for individual commodities.*—The present parity index is a broad measure of the change in prices paid by farmers for commodities and services used in farm production and farm family living. It is representative of all farmers in the United States taken as a group, and its weighting system reflects the average purchase pattern of some 5 million farm operators producing a wide variety of farm products under a wide range of conditions. There have been suggestions that separate indexes should be established which would give due weight to differences in the kind and quantities of items associated with the production of individual farm commodities. Thus the purchasing power of an individual farm product would be determined from an index of the particular cost factors related directly to the particular commodity, probably without any allowances for the farm family living component of the present prices paid or parity index.

While detailed data on particular cost factors are not available, the index of prices paid for commodities used in production for 27 types of farms in several major farming areas, shown in table 4, is indicative of the problems that would be faced if individual parity indexes were to be used. These data approximate the variation of price trends for production items that might be expected among farms producing different commodities and also the variation among areas producing the same commodities. The table, for example, indicates that the changes in the special prices paid indexes between 1947–49 and 1956 for all the types of farms shown ranged from a 4-percent decline for sheep ranches in the Southwest to an increase of 26 percent for wheat-pea farms in Washington-Idaho. The overall index of prices paid by farmers, covering the United States as a whole, rose 14 percent.

TABLE 4.—*Indexes of prices paid for commodities used in production, United States, and types of farming areas*

[1947–49=100]

	1937–41	1947–49	1952	1953	1954	1955	1956
United States [1]	50	100	117	112	112	112	114
Dairy farms:							
Central Northeast [2]	50	100	115	110	109	107	108
Eastern Wisconsin [2]	51	100	[3] 115	114	114	[3] 115	115
Western Wisconsin [2]	51	100	115	114	114	[3] 115	116
Hog-dairy farms, Corn Belt [2]	[3] 50	100	116	114	113	113	114
Hog-beef raising farms, Corn Belt [2]	53	100	117	116	114	[3] 111	114
Hog-beef fattening farms, Corn Belt [2]	45	100	112	102	105	[3] 102	100
Cash grain farms, Corn Belt [2]	55	100	119	120	121	123	124
Tobacco-livestock farms, Kentucky blue-grass [2]	45	100	118	118	121	118	120
Tobacco-cotton farms, coastal plains, North Carolina [2]	(4)	100	114	116	118	119	123
Tobacco farms (small), coastal plains, North Carolina [2]	(4)	100	113	115	117	117	117
Tobacco-cotton farms (large), coastal plains, North Carolina [2]	(4)	100	109	110	117	118	123
Cotton farms:							
Southern Piedmont [2]	48	100	115	112	108	[3] 117	112
Black prairie, Texas [2]	46	100	[3] 111	[3] 106	[3] 105	[3] 103	106
Nonirrigated, high plains, Texas [2]	47	100	112	119	104	[3] 110	112
Irrigated, high plains, Texas [2]	(4)	100	108	104	99	[3] 102	101
Small, delta [2]	(4)	100	113	110	109	[3] 107	107
Large scale, delta [2]	(4)	100	116	107	110	108	107
Wheat, small grain, livestock farms, Northern Great Plains [2]	49	100	[3] 114	[3] 114	[3] 115	[3] 107	111
Wheat, corn, livestock farms, Northern Great Plains [2]	[3] 61	100	117	[3] 117	117	[3] 116	116
Wheat, roughage, livestock farms, Northern Great Plains [2]	51	100	117	115	113	[3] 113	112
Winter wheat farms, Southern Plains [2]	52	100	118	119	117	[3] 118	121
Wheat, pea farms, Washington and Idaho [2]	51	100	121	122	120	[3] 122	126
Sheep ranches:							
Northern Great Plains livestock area [2]	47	100	133	119	117	116	115
Southwest [2]	(4)	100	123	103	97	103	96
Cattle ranches:							
Northern Great Plains livestock area [2]	50	100	126	121	119	121	125
Intermountain region [2]	[3] 54	100	[3] 122	120	[3] 116	[3] 120	123
Southwest [2]	(4)	100	128	108	110	104	109

[1] Prices paid for production items, interest, taxes, and wages as published in monthly Agricultural Prices.
[2] Prices paid, including taxes (but not interest), and wages to hired labor as published in Farm Costs and Returns, Agriculture Information Bulletin No. 176, ARS, USDA.
[3] Revised.
[4] Not available.

Meanwhile, there is almost as much variation in some instances in the cost-rate indexes for typical farms producing the same commodities in different areas as there is among different commodities. For example, increases in the specialized price indexes for cattle ranches range from 9 percent in the Southwest to 25 percent in the northern Great Plains area. For cotton farms, the increases range from 1 percent for irrigated operations in the high plains of Texas to 12 percent for nonirrigated operations in the same area. Such data are available for only a few farm areas, even for recent years, and deriving satisfactory national indexes would involve a major undertaking, considering the 160 farm products for which parity prices are now computed.

It should also be noted that the use of separate parity or cost-rate indexes for individual commodities, or even related groups of commodities, would mean a considerable shift away from the general purchasing-power or price-level concept on which the current parity price formula is based toward a cost-of-production concept. This in turn would certainly lead to many requests for different base periods,

different methods of calculation, and consideration of or allowances for special situations in addition to data problems already mentioned.

(c) *Efficiency modifier for parity prices.*—The suggestion has been made that the parity price formula, which measures the purchasing power of farm products on a per unit basis, should be adjusted to reflect the fact that it takes fewer resources to produce farm commodities today than in earlier years. Preliminary calculations indicate that farmers are now using about one-fourth fewer inputs per unit of total farm production than in 1940. This is as far back as adequate data are presently available although we of course know that farm efficiency was gradually increasing prior to 1940. But if only the efficiency increases since 1940 were given full weight as an adjustive factor, the current level of parity prices for all farm products would have been reduced almost a fourth.

In considering such a change or revision, attention should also be given to the way in which efficiency gains in the nonfarm economy are reflected in prices or returns. Nonfarm productive efficiency has also been increasing, and we know that economic gains resulting from improved efficiency can be distributed in a number of ways—that is, through increased returns to capital, higher wages for labor, improved quality of products, lower prices to consumers, or some combination of these. In the nonfarm economy, it is evident that gains in efficiency are often not directly or immediately translated into price reductions. Since the end of World War II especially, the tendency has been for industrial prices to hold steady or gradually increase. If all nonfarm efficiency gains were passed forward to consumers, prices paid by farmers would be lowered. This would mean that parity prices as now calculated would also automatically be lowered or adjusted by an equal amount.

We should also keep in mind that gains in efficiency do not proceed smoothly and in all segments of agriculture at the same time. Questions would surely be raised as to whether the marked efficiencies stemming from a few products should appropriately be used to lower parity prices for others as well.

(d) *Modernized parity modified for price stabilization costs.*—For some time now Government support or stabilization programs have maintained prices of some products higher than would have been realized otherwise. This has been reflected favorably in the parity prices for those commodities, while parity prices for other commodities have absorbed an offsetting adjustment. Suggestions have been made that the influence of Government programs should be eliminated from the parity calculations, provided some satisfactory statistical method for so doing could be found.

A preliminary calculation has been made using certain realized cost data relating to the major price-support and export programs for the 10-year period, July 1946 to June 1956. For farm products as a whole, deductions on a realized-cost basis would reduce the index of prices received by farmers during that 10-year period (1947–56) from 265 to 261. Parity prices of corn, cotton, wheat, and so forth, would be reduced while parity prices for commodities for which there were small realized program losses or costs would be increased about 2 percent. The realized program-cost concept, however, does not ade-

quately measure the full price effect of such programs on particular commodities, while this concept would also certainly be questioned as working in the opposite direction from the declared purpose of the Congress in those cases where commodity parities were lowered.

Parity Income Formulas

The idea of parity income centers on the relationship between incomes of farm people and incomes of nonfarm people. Generally, there have been two basic approaches to the problem of determining parity income. One involves the maintenance of historical income ratios which would provide for farmers' incomes and standards of living to grow at the same rate as others. Examples of the historical income-ratio approach include the original definitions of income parity in the Soil Conservation and Domestic Allotment Act of 1936 and the Agricultural Adjustment Act of 1938. The alternative approach calls for equal incomes or levels of living as between farmers and others as provided for in the Agricultural Act of 1948. While parity income definitions have existed alongside parity price definitions, Congress has not indicated or directed that the parity-income concept should be substituted for parity prices as an actual operating standard.

The parity-income ratio of the 1936 legislation involved the ratio between the total net income (from all sources) per person on farms to income per person not on farms, while the ratio of the 1938 legislation related to the per capita income of persons on farms from farming operations as against per capita net incomes of persons not on farms. Apparently, the 1938 definition was a revision of the 1936 definition tailored to fit the then available statistics. Neither the 1936 nor the 1938 parity-income definitions provided a formula for deriving a set of commodity prices or returns compatible with the income standard.

Chart 5 shows the comparative ratios of income of persons on farms to incomes of persons not on farms consistent with the historical income ratios in the legislation of 1936 and 1938. The annual data are shown in table 5.
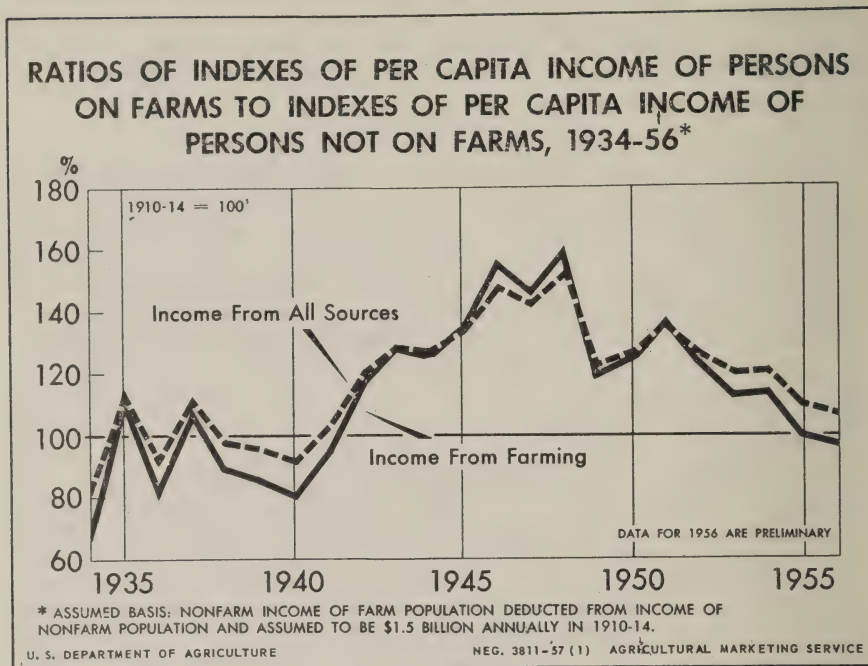
CHART 5

RATIOS OF INDEXES OF PER CAPITA INCOME OF PERSONS ON FARMS TO INDEXES OF PER CAPITA INCOME OF PERSONS NOT ON FARMS, 1934-56*

%

1910-14 = 100'

Income From All Sources

Income From Farming

DATA FOR 1956 ARE PRELIMINARY

* ASSUMED BASIS: NONFARM INCOME OF FARM POPULATION DEDUCTED FROM INCOME OF NONFARM POPULATION AND ASSUMED TO BE $1.5 BILLION ANNUALLY IN 1910-14.

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TABLE 5.—*Illustrative per capita income parity ratios of farm population to nonfarm population, as defined in agricultural legislation of 1936 and 1938, 1934–56*

[1910–14=100]

Year	Ratio of per capita income of farm population to per capita income of nonfarm population		Year	Ratio of per capita income of farm population to per capita income of nonfarm population	
	Income to farm people from farming only (1938 legislation)	Income to farm people from all sources (1936 legislation)		Income to farm people from farming only (1938 legislation)	Income to farm people from all sources (1936 legislation)
1934	74	85	1946	159	149
1935	115	115	1947	150	144
1936	85	94	1948	162	153
1937	109	112	1949	122	124
1938	91	99	1950	128	128
1939	88	97	1951	139	136
1940	83	93	1952	125	127
1941	98	104	1953	116	121
1942	119	120	1954	116	124
1943	131	129	1955	102	113
1944	129	128	1956	96	109
1945	138	134			

NOTE.—Assumes nonfarm income of farm population averaged $1,500,000,000 in the base years 1910–14. No reliable estimate of such income is available for that period.

It should be noted that the estimates for the base period 1910–14 are fairly rough. The data for 1956 indicate that the ratios of farm to nonfarm per capita income were much the same as in the base period 1910–14, ranging from 4 percent below for the 1938 definition to 9 percent above for the 1936 definition. Both ratios are likely to run somewhat higher for 1957 than in 1956. Over the long term, incomes of farm people have tended to move much the same as incomes of nonfarm people, although at a lower level. If, however, the last 10 years were used as a base, the ratio of income per person on farms from all sources to income per person not on farms for 1957 may run as much as 10 percent lower than the base period.

Meanwhile, the Department so far has not been in a position to bring statistical meaning to the definition of parity income in the Agricultural Act of 1948:

> "Parity," as applied to income, shall be that gross income from agriculture which will provide the farm operator and his family with a standard of living equivalent to those afforded persons dependent upon other gainful occupation. "Parity" as applied to income from any agricultural commodity for any year, shall be that gross income which bears the same relationship to parity income from agriculture for such year as the average gross income from such commodity for the preceding 10 calendar years bears to the average gross income from agriculture for such 10 calendar years.

The determination of equivalent standards of living involves much more than equivalent dollar incomes. A family's well-being depends not only on income but also on other factors such as the accumulation of assets and consumer goods over the years, the availability of adequate health and educational facilities, and such intangible factors as are involved in evaluating country versus city life. It is noteworthy that our indexes of levels of living of farm operator families indicate a persistent improvement in family levels of living from 1951 into 1956 despite declines in farm income during that period.

Similar questions relate to the direct income comparison of persons on farms with persons not on farms. In 1956, for example, the average per capita income of persons on farms was about $900 as compared with about $2,000 for the nonfarm person. Even after a number of statistical adjustments for differences in costs of living as between farm and nonfarm families, some of which are subject to considerable question, a remaining gap of perhaps $700 per person is indicated.

It is sometimes suggested that a considerable part of the farm population is either underemployed or not closely connected with commercial agriculture and therefore should be eliminated from the income comparison. For example, the comparison might be restricted to the 2 million or so commercial farms which produce about 90 percent of the farm products sold. But a major question arises as to the appropriate nonfarm group with which incomes to such a farm group should be compared. Commercial farmers have considerable capital investments and skills not readily comparable with nonfarm occupations and their returns would, in any equity argument, have to

be compared with returns or net incomes to a comparable nonfarm group.

There are also suggestions that farmers should receive the same return per hour as industrial workers. For 1956, it is estimated that the average return per hour to farm labor was slightly under 75 cents (necessarily a rough estimate) as compared with almost $2 in manufacturing (excluding any allowance for fringe benefits in the case of manufacturing labor and assuming farmers also realized interest or profits on their net capital investment equal to the average interest rate for loans held by principal farm lenders, about 4.75 percent).

Whatever net aggregate measure a parity income definition starts with, whether it is related to a historical ratio, to equal living standards, or to returns per hour of labor, some difficult problems are raised when it comes to translating the overall aggregate into returns or prices for particular commodities or returns or income standards for particular farms or classes of farms.

As indicated earlier, the 1948 parity-income definition does outline a device for deriving a set of related gross commodity incomes. Starting with the net aggregate income necessary to give farm operators living standards equal to those afforded persons dependent upon other gainful occupations, the first step would be to subtract the estimated net income derived from nonagricultural sources. Then parity as applied to any agricultural commodity for any year would be—

> that gross income which bears the same relationship to parity income from agriculture for such year as the average gross income from such commodity for the preceding 10 calendar years bears to the average gross income from agriculture for such 10 calendar years.

This means that the estimated net income which would have to come from agriculture would have added to it estimated farm production expenses for the year to arrive at the necessary gross parity return. This gross parity return to all agriculture would then be broken down among the various commodities on the basis of actual relative gross values during the preceding 10 calendar years, giving the desired total value for the particular commodity for the particular year. Presumably this could then be translated into a price standard by using a combination of desirable or estimated acreages and average or estimated yields for the particular commodity involved.

Finally, it should be emphasized that neither price nor income parities have the same significance for those farm operators who have little to sell as they do for commercial farmers. Data from the 1954 Census of Agriculture show that close to 2 million farmers, or 40 percent of all farmers, sold less than $1,200 worth of farm products during the year. For this group, parity prices for farm products would still not mean an adequate level of income or of living although increased returns from the sale of farm products would of course mean some improvement. Thus the realization even of income parity through parity prices would not solve the problem of inadequate incomes and low living levels for many farmers who are presently in that situation. The prospects of such farmers improving

their economic situation depend much more on other factors, such as opportunities to acquire adequate land, sufficient capital, improved skills, or suitable nonfarm employment.

The following supplements set forth the leading statutory definitions of both parity prices and parity income from 1933 to date.

Statutory Definitions of Parity Prices, 1933–1957

The first definition of parity was contained in the Agricultural Adjustment Act of 1933 which stated that it was the policy of Congress among other things to—

(1) * * * reestablish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles that farmers buy, equivalent to the purchasing power of agricultural commodities in the base period. The base period in the case of all agricultural commodities except tobacco shall be the prewar period, August 1909 to July 1914. In the case of tobacco, the base period shall be the postwar period, August 1919 to July 1929.

(2) To approach such equality of purchasing power by gradual correction of the present inequalities therein at as rapid a rate as is deemed feasible in view of the current consumptive demand in domestic and foreign markets.

There were several amendments to this first definition providing among other things that for the purposes of marketing agreements or orders where the purchasing power of a commodity could not be—

satisfactorily determined from available statistics of the Department of Agriculture, the base period, for the purposes of such marketing agreement or order, shall be the postwar period, August 1919 to July 1929, or all that portion thereof for which the Secretary finds and proclaims that the purchasing power of such commodity can be satisfactorily determined from available statistics of the Department of Agriculture.

Provision was also made for the calculation of parity prices in such a manner as would—

give to the commodity a purchasing power with respect to articles that farmers buy equivalent to the purchasing power of such commodity in the base period; and, in the case of all commodities for which the base period is the period August 1909 to July 1914, which will also reflect current interest payments per acre on farm indebtedness secured by real estate, tax payments per acre on farm real estate, and freight rates, as contrasted with such interest payments, tax payments, and freight rates during the base period.

The current definition is contained in section 301 of the Agricultural Adjustment Act of 1938, as amended, which provides:

Sec. 301. (a) General Definitions.—For the purposes of this title and the declaration of policy—

(1) (A) The "parity price" for any agricultural commodity, as of any date, shall be determined by multiplying the adjusted base price of such commodity as of such date by the parity index as of such date.

(B) The "adjusted base price" of any agricultural commodity, as of any date, shall be (i) the average of the prices received by farmers for such commodity, at such times as the Secretary may select during each year of the 10-year period ending on the 31st of December last before such date, or during each marketing season beginning in such period if the Secretary determines use of a calendar year basis to be impracticable, divided by (ii) the ratio of the general level of prices received by farmers for agricultural commodities during such period to the general level of prices received by farmers for agricultural commodities during the period January 1910 to December 1914, inclusive. As used in this subparagraph, the term "prices" shall include wartime subsidy payments made to producers under programs designed to maintain maximum prices established under the Emergency Price Control Act of 1942.

(C) The "parity index," as of any date, shall be the ratio of (i) the general level of prices for articles and services that farmers buy, wages paid hired farm labor, interest on farm indebtedness secured by farm real estate, and taxes on farm real estate, for the calendar month ending last before such date to (ii) the general level of such prices, wages, rates, and taxes during the period January 1910 to December 1914, inclusive.

(D) The prices and indexes provided for herein, and the data used in computing them, shall be determined by the Secretary, whose determination shall be final.

(E) Notwithstanding the provisions of subparagraph (A), the transitional parity price for any agricultural commodity, computed as provided in this subparagraph, shall be used as the parity price for such commodity until such date after January 1, 1950, as such transitional parity price may be lower than the parity price, computed as provided in subparagraph (A), for such commodity. The transitional parity price for any agricultural commodity as of any date shall be—

(i) its parity price determined in the manner used prior to the effective date of the Agricultural Act of 1948, less

(ii) 5 percentum of the parity price so determined multiplied by the number of full calendar years (not counting 1956 in the case of basic agricultural commodities) which, as of such date, have elapsed after January 1, 1949, in the case of nonbasic agricultural commodities,

and after January 1, 1955, in the case of the basic agricultural commodities. The Secretary shall make a thorough study of possible methods of improving the parity formula and report thereon, with specific recommendations, including drafts of necessary legislation to carry out such recommendations, to Congress not later than January 31, 1957.

(F) Notwithstanding the provisions of subparagraphs (A) and (E), if the parity price for any agricultural commodity, computed as provided in subparagraphs (A) and (E) appears to be seriously out of line with the parity prices of other agricultural commodities, the Secretary may, and upon the request of a substantial number of interested producers shall, hold public hearings to determine the proper relationship between the parity price of such commodity and the parity prices of other agricultural commodities. Within 60 days after commencing such hearing the Secretary shall complete such hearing, proclaim his findings as to whether the facts require a revision of the method of computing the parity price of such commodity, and put into effect any revision so found to be required.

(G) Notwithstanding the foregoing provisions of this section, the parity price for any basic agricultural commodity, as of any date during the 6-year period beginning January 1, 1950, shall not be less than its parity price computed in the manner used prior to the enactment of the Agricultural Act of 1949.

Statutory Definitions of Parity Income, 1936–57

Parity income was first defined in the Soil Conservation and Domestic Allotment Act of 1936 which declared that the purpose of the act was the—

reestablishment, at as rapid a rate as the Secretary of Agriculture determines to be practicable and in the general public interest, of the ratio between the purchasing power of the net income per person on farms and that of the income per person not on farms that prevailed during the 5-year period August 1909–July 1914, inclusive, as determined from statistics available in the United States Department of Agriculture, and the maintenance of such ratio.

The 1936 definition was revised in the Agricultural Adjustment Act of 1938 which provided that—

"Parity," as applied to income, shall be that per capita net income of individuals on farms for farming operations that bears to the per capita net income of individuals not on farms, the same relation as prevailed during the period from August 1909 to July 1914.

Both of these definitions related to income ratios that existed in the same time period as the base period established for determining parity prices, the 5 years 1910–14.

These definitions were replaced in the Agricultural Act of 1948 which defined parity income, effective January 1, 1950, as

"Parity," as applied to income, shall be that gross income from agriculture which will provide the farm operator and his family with a standard of living equivalent to those afforded persons dependent upon other gainful occupation. "Parity," as applied to income from any agricultural commodity for any year, shall be that gross income which bears the same relationship to parity income from agriculture for such year as the average gross income from such commodity for the preceding 10 calendar years bears to the average gross income from agriculture for such 10 calendar years.